Kontis et al. Annals of General Psychiatry 2010, 9(Suppl 1):S125
http://www.annals-general-psychiatry.com/content/9/S1/S125

ANNALS OF GENERAL PSYCHIATRY

MEETING ABSTRACT Open Access

Relationship of parental age with set shifting and reversal learning in schizophrenia

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From 1st International Congress on Neurobiology and Clinical Psychopharmacology and European Psychiatric Association Conference on Treatment Guidance
Thessaloniki, Greece. 19-22 November 2009

Background

Advanced parental age at birth has been associated with the risk of schizophrenia and has been linked to cognitive deficits in children. However, the relationship of parental age with cognition and with attentional flexibility in schizophrenia remains unknown.

Materials and methods

27 patients with schizophrenia, were tested on the intra-dimensional/extra-dimensional set-shifting task (IEDS) of the Cambridge Neuropsychological Test Automated Battery (CANTAB) in an acute psychiatric ward. The paternal (PAB) and maternal age at birth (MAB) were also registered. Statistical correlation analyses and the Mann-Whitney test were performed using the SPSS.

Results

PAB positively correlated with the intra-dimensional shifting errors in the IEDS (rho = 0.7, p = 0.005). MAB positively correlated with both intra- and extra-dimensional reversal errors (rho = 0.572, p = 0.026 and rho = 0.9, p = 0.037, respectively). When we divided our subjects into two groups according to their PAB (≥ and < 30 years), no differences were found in any cognitive measure. However, the group with a MAB ≥ 30 years, showed increased intra-dimensional reversal errors compared with the group with a MAB < 30 years (p = 0.03 and 0.029 respectively).

Conclusions

Increasing parental PAB showed an inverse relationship with the intra-dimensional shifting ability, but did not affect rule reversal performance. MAB was associated with errors in both intra- and extra-dimensional reversal in schizophrenia.

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Published: 22 April 2010

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doi:10.1186/1744-859X-9-S1-S125
Cite this article as: Kontis *et al.*: Relationship of parental age with set shifting and reversal learning in schizophrenia. *Annals of General Psychiatry* 2010 **9**(Suppl 1):S125.

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